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YASIYEVICH, V., kend.srkhitēktury; PROTSENKO, O., srkhitektor, prepodavatel;
PORSIN, Yu., kend.tekhn.nauk, dotsent; KAMYSHNYY, N., doktor tekhn.
nauk, prof.; LEVIN, I., kand.tekhn.nauk, dotsent; FRITEIN, B., student;
SEKACHEV, Yu., student; MILEVSKIY, V., student; VMIRNOV, A., student;
KORNEYEVA, S., studentka; VYGODSKIY, B., student; MOSHKOV, V., student

What kind of program for the course in "Industrial Design?"
Opinion of teachers and students. Tekh.est. no.5:20-21 My '65.

(MIRA 18:6)

1. Kafedra nāchertatel noy geometrii i kafedra grafiki Lesotekhnicheskoy akādemii Imeni Kirova (for Porsin). 2. Moskovskoya vysshēya tekhnicheskoye uchilishche imeni Baumana (för Kamyshnyy, Korneyeva, Vygodskiy, Moshkov). 3. Moskovskiy avtomekhanicheskiy institut (for Levin, Smirnov). 4. Leningrādskiy Institut aviapriborostroyeniya (for Fridkin, Sekachev, Milevskiy).

YASKAZHUK, A. S.

Yaskazhuk, A. S.

"The authority of the teacher and methods of creating and strengthening it." Min Education Ukrainian SSR. Kiev State Fedagogical Instimeni A. M. Gor'kiy. Kiev, 1956 (Dissertation for the degree of Candidate in Fedagogical Sciences)

Knizhnaya <u>letopis</u> No. 15, 1956. Moscow

ARONOV, I., kand. tekhn. nauk (Kiyev); KHILINSKAYA, L., inzh. (Kiyev);

VASKE, M., inzh. (Kiyev)

Using the heat of The gases. Zhil.-kom. khoz. 12 no.5:31
My \*62. (Mira 15:10)

(Waste heat) (Flue gases)

ARONOV, I.Z.; KHILINSKAYA, L.G.; KISELEV, M.Ye.; YASKE, M.F.

Improving the utilization of natural gas in boiler rooms. Prom.energ. 16 no.9:32-33 S '61. (MIRA 14:8)

3/058/62/000/007/061/06 A062/A101

AUTHORS:

Vagner, S. D., Yelesova, T. D.; Yaskelyaynen, F. S.

TITLE:

Optical properties of the positive column of a d.c. discharge in

helium

PERIODICAL:

Referativnyy zhurnal, Fizika, no. 7, 1962, 54, abstract 7Zh366

("Uch. zap. Karel'sk. ped. in-t", 1961, v. 11, no. 1, 75 - 81)

The relative intensities of 10 He lines were measured in the pres-TEXT: sure range 0.12 - 0.74 mm Hg at various values of the discharge current. At the same time the electric parameters of the plasma were measured by probes. The intensity was measured by a photographic method on two characteristic curves. At the analysis of the probe characteristics, the method of processing the ion portion of the characteristics and the beginning of its electron portion was used. The speed distribution of the electrons was supposed to be of the Maxwell form. The electron temperature was determined from the diagram of the dependence between the logarithm of the derivative of the total current on the probe and the voltage between the probe and the anode. In case of a large photocurrent from

Card 1/2

Optical properties of the ..

S/058/62/000/007/051/068 A062/A101

the surface of the probe, the concentration of the charged particles, determined from the ion portion of the characteristic, will yield too high results. However, characteristics shows that the photoeffect can be neglected. The results of the measurement show that the intensity of all investigated lines increases with the increase of the discharge current. At high pressures a saturation effect is observed that may be explained by the decrease of the electron temperature. The perimental data shows that the disactivation of the excited levels is due chiefly and normal atoms resulting in the production of molecular ions. There are 15

Yu. Kutev

[Abstracter's note: Complete translation]

Card 2/2

DCROSINSKIY, M., kapitan teplokhoda "Il'ich"; YASKEVICH, A. kapitan dal'nego plavaniya.

New manual on seamanship. ("Seamanship" part 1. ed. I.I.Kirdan and others. Reviewed by M.Dorosinskii, A.Iaskevich). Mor.flot 16 no.9: 30-32 S '56. (Seamanship) (MIRA 9:10)

MISHIN, M.: YASKEVICH, A.

Use of the radar station "Neptune" for pilot guiding of vessels. Mor.flot 17 no.9:26-27 S '57. (MIRA 10:11)

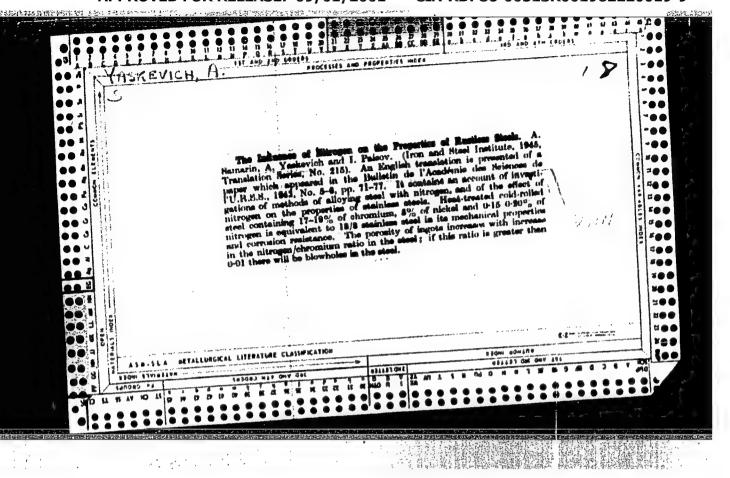
1. Kapitan Ust'-Kamchatskogo porta (for Mishin). 2. Starshiy inshener-kapitan Upravleniya glavnogo revizora Ministerstva morskogo flota SSSR (for Yaskevich).

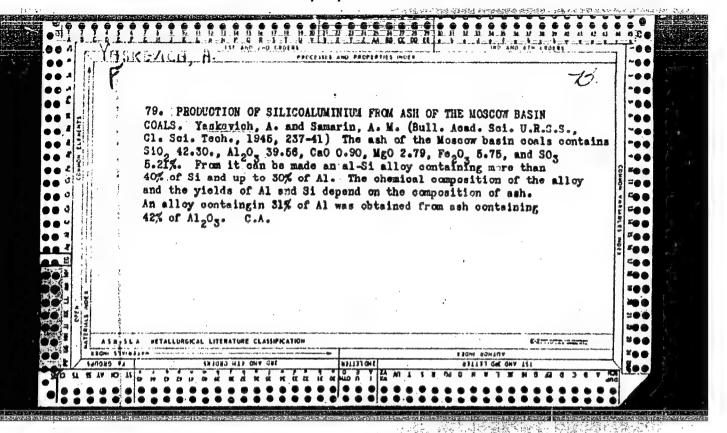
(Radar in navigation) (Ust-Kamchatsk--Pilot guides)

YASKEVICH, A., starshiy inzhener-kapitan; ZURABOV, Yu., starshiy inzh.

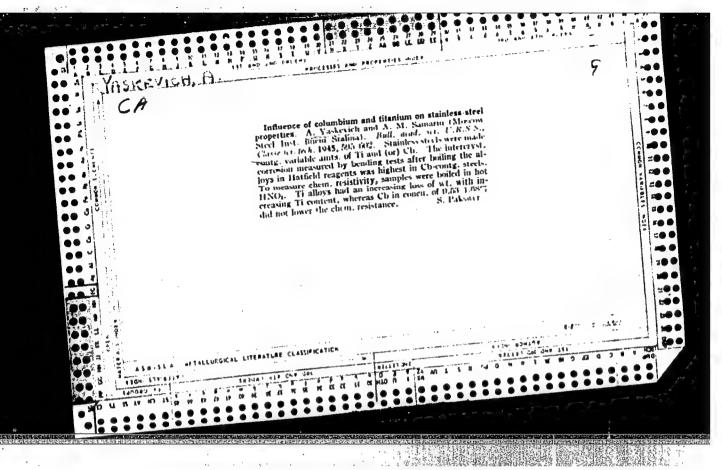
Revision of the International Signal Code. Mor. flot 22 no.8: 25-26 Ag 162. (MIRA 15:7)

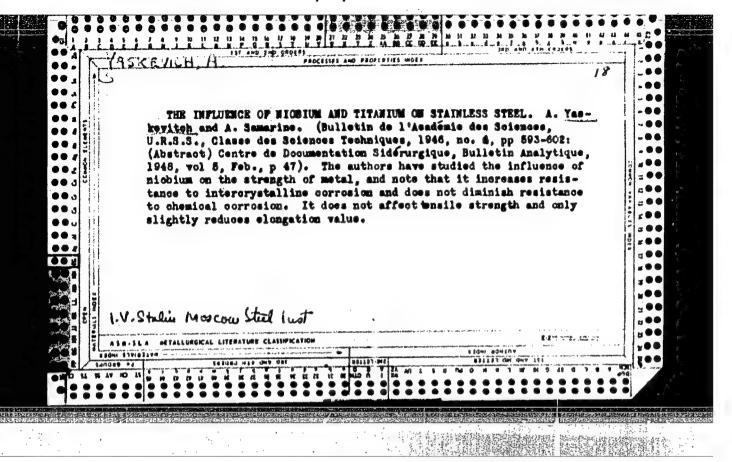
1. Upravleniye glavnogo revizora po bezopasnosti moreplavaniya Ministerstva morskogo flota (for Yaskevich). 2. TSentral'nyy nauchno-issledovatel'skiy institut morskogo flota (for Zurabov). (Signals and signaling)





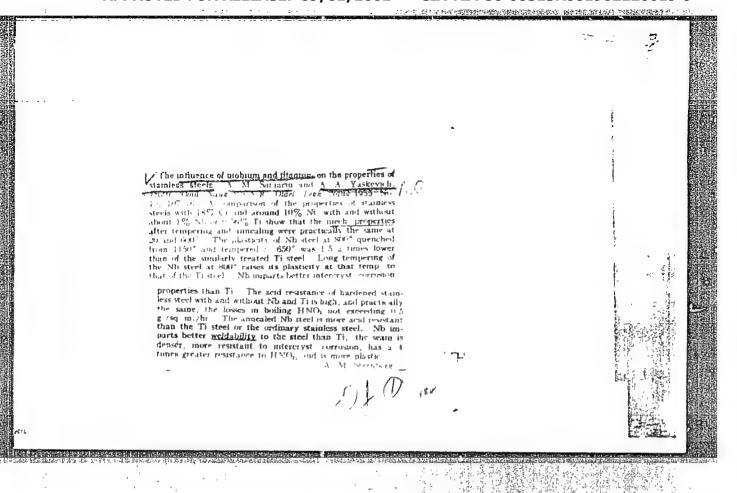
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# "APPROVED FOR RELEASE: 09/01/2001

#### CIA-RDP86-00513R001962220019-9



YASKEVICH dotsent, kandidat tekhnicheskikh nauk.

Effect of deoxidation conditions on the content of nonmetallic inclusions in steel. Shor. Inst. stali no.35:271-282 '56. (MLRA 10:8)

1. Kafedra elektrometallurgii. (Steel--Metallurgy) (Steel--Defects)

YASKEVICH, A.A., dotsent, kandidat tekhnicheskikh nauk; FILIPPOV, A.F., dotsent, kandidat tekhnicheskikh nauk; SAMARIN, A.M.

Iamination of chromium-nickel alloys in thin sheets. Shor. Inst. stall no.35:320-326 56. (MIRA 10:8)

1. Kafedra elektrometallurgii. 2. Chlen-korrespondent AN SSSR (for Samarin).

(Steel-Defects)
(Chromium-nickel alloys--Metallography)

YASKEVICH, A., kapitan dal'nego plavaniya

Limited visibility and the magnitude of moderate speed. Mor. flot 21 no.4:17-19 Ap '61. (MIRA 14:4)

YASKEVICH, A.A.; SAMARIN, A.M.

Effect of nitrogen and boron on the properties of austenitic stainless steel. Izv. vys. ucheb. zav.; chern. met. 5 no.7: 97-102 '62. (MIRA 15:8)

1. Moskovskiy institut stali i splavov.
(Steel, Stainless--Metallurgy)

YASKEVICH, A.

Maintaining the logbook. Mor. flot. 24 no.11:25-26 N 164. (MIRA 18:8)

l. Zamestitel' nachal'nika otdela bezopasnosti Glavnogo upravleniya moreplavaniya Ministerstva morakogo flota.

2-67 EWT(m)/EWP(t)/ETI AP6032051 SO TI IJP(c) JD/JG/WB SOURCE CODE: UR/0148/66/000/009/0062/0065/36 L 08292-67 ACC NRI Neygebauer, G. O.; Yaskevich, A. A.; Buryakov, Yu. A. AUTHOR: ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut i splavov) TITLE: Corrosion resistance of austenitic stainless steel containing nitrogen and the effect produced on it by rare-earth metals IVUZ. Chernaya metallurgiya, no. 9, 1966, 62-65 TOPIC TAGS: austenitic stainless steel, chromium nickel stainless steel, steel intergranular corrosion, cerium containing steel, lanthanum containing steel, neodymium containing steel, praseodymium containing steel, nitrogen containing steel, austenitic steel, carbon steel, corrosion resistance, intergranular corrosion ABSTRACT: Two series of heats of austenitic stainless steel containing 0.03-0.09% carbon, 1.5-2.2% manganese, 18.0-20.0% chromium, 5-7% nickel, 0.15-0.20% nitrogen, and 0-0.50% rare-earth metal (cerium, lanthanum, neodymium and praseodymium) have been tested to determine the maximum carbon content which does not render the steel susceptible to intergranular corrosion and to evaluate the effect of small additions of rare-earth metal on this maximum permissible carbon content. Corrosion tests of specimens annealed at 1100C and sensitized at 650C Card 1/2 UDC: 669.018.8:669.85/.86:620.193

#### "APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001962220019-9

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for 1 hr showed that carbon in excess of 0.043—0.046% sharply increased the rate of corrosion, which proves the susceptibility of steel to intergranular corrosion. Tests also showed that rare-earth metals lower the resistance to corrosion of all tested steels in proportion to the increase of steel carbon content. Rare-earth metals appear to form carbides at grain boundaries which, due to their instability in acid solutions, promote intergranular corrosion. On the other hand, sensitized steel containing 0.045% carbon and no rare-earth metals is not susceptible to intergranular corrosion, and its resistance to corrosion in boiling nitric acid? corresponds approximately to that of vacuum-melted Kh18N9 steel and greatly exceeds the resistance to corrosion of Kh18N9T steel. Orig. art. has: 4 figures.

SUB CODE: 13, 11/ SUBM DATE: 17Jan66/ ORIG REF: 005/ OTH REF: 001

Card 2/2 /5

YASKEVICH, A., kapitan dal'nego plavaniya

Heroic passages. Mor. flot 25 mg.5:10-12 My '65. (MIRA 18:5)

RYABCHENKO, N.I.; SPITKOVSKIY, D.M.; TSEYTLIN, P.I.; Prinimala uchastiye YASKEVICH, A.G., studentka

Some physicochemical aspects of single-strand DNA. Biofizika 8 no.1:19-27 163. (MIRA 17:8)

l. Institut eksperimental'ncy biologii AMN SSSR, Moskva i Institut meditsinskoy radiologii AMN SSSR, Moskva.

IVANNIK, B.P.; KLIPSON, N.A.; MAMEDOVA, T.G.; RYABCHENKO, N.I.; SKLOBOVSKAYA, M.V.; YASKEVICH, A.G.

Molecular mechanisms underlying radiation-induced cytogenetic disorders. Vest. AMN SSSR 20 no.9018-22 65.

(MIRA 18:11)

1. Institut meditsinskoy radiologii AMN SSSR, Obninsk.

42058

27,1220

\$/219/62/000/011/002/002 B144/B186

AUTHORS:

Ryabchenko, N. I., Tseytlin, P. I., Yaskevich, A. G.

TITLE:

Study of local radiation injuries in DNA by thermal separa-

tion of the double helix

PERIODICAL:

Byulleten' eksperimental'noy biologii i meditsiny, no. 11,

1962, 51 - 54

TEXT: The effect of irradiations on the DNA macromolecule was studied on tha basis of the degradation kinetics and viscosity of its one-strand structures. A double-helix DNA (N/P  $\approx$  1.64 - 1.68; E(P) = 6500 - 6700;

molecular weight =  $7 \cdot 10^6 - 8.5 \cdot 10^6$ ) was obtained from calf thymus and x-ray irradiated with 5000 r/min. UV irradiation lasted for 5 min, dose 4.7.10<sup>4</sup> erg/min.mm<sup>2</sup>. One-strand DNA was obtained at 88°C by the method of P. Doty et al. (Proc. nat. Acad. Sci. (Wash.), 1960, v. 46, p.461). The number of strands was calculated from log ?/log R divided by -d, where ? is the viscosity, R the x-ray dose in r, and & the exponent in the Staudinger equation. Since the number of chains, n, was ~1 in irradiated and

S/219/62/000/011/002/002 B144/B186

Study of local ...

non-irradiated structures, it is assumed that x-ray irradiation does not cause thermostable crosslinking. UV irradiation inhibited the separation of the strands, owing to crosslinking. These results agree closely with the viscosity data obtained with different electrolytes and temperatures. When the Na<sup>+</sup> ion concentration is increased from 0.01 to 0.2 M, the onestrand DNA from irradiated as well as non-irradiated DNA coils up, and the viscosity decreases by 20 - 30 times. When the temperature in 0.2 M Na<sup>+</sup> is raised from 25 to 70°C, the viscosity increases by a factor of 3.0-3.7. The viscosity of the irradiated one-strand DNA is, however, 3-4 times lower than that of the non-irradiated; this is apparently due to solitary breaks in the chains. The effects of increased temperature and ion concentration in UV irradiated one-strand DNA were much less marked. There are 1 figure and 1 table.

ASSOCIATION:

Institut eksperimental'noy biologii AMN, SSSR (Institute of Experimental Biology AMS USSR (I. N. Mayskiy, Professore, Director); Institute meditsinskoy radiologii AMN SSSR (Institute of Medical Radiology AMS USSR, Moscow (G. A. Zedgenidze, Member of the AMS USSR, Director)

Card 2/3

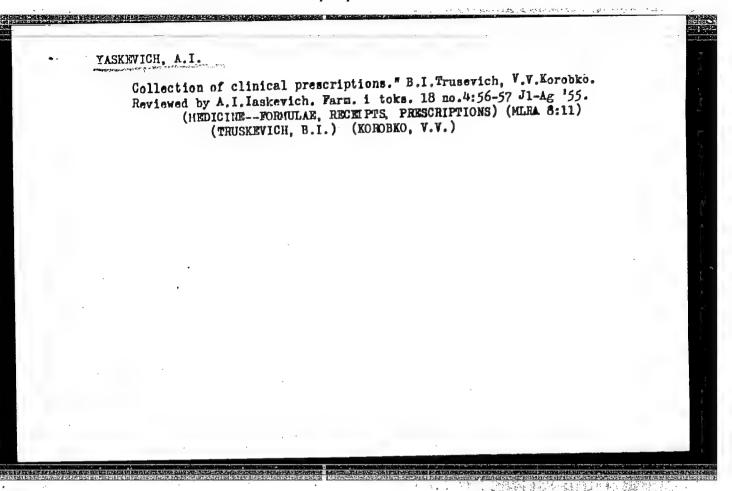
8/219/62/000/011/002/002 B144/B186

Study of local ...

PRESENTED: by N. N. Zhukov-Verezhnikov, Member of the AMS USSR

SUBMITTED: February 20, 1962

Card 3/3

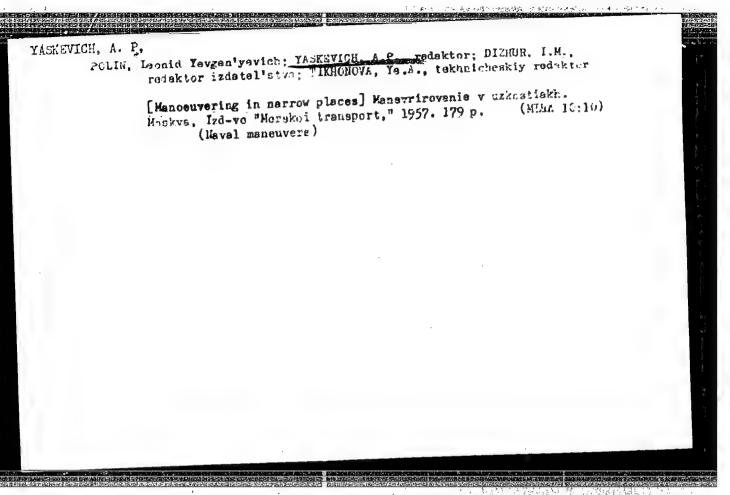


YASKEVICH, A.M., inzh.

Efficiency of using trolley dump trucks in Bogurayev Quarries.

Nekh.i avtom.proisv. 14 no.5:44-45 My '60. (MIRA 14:2)

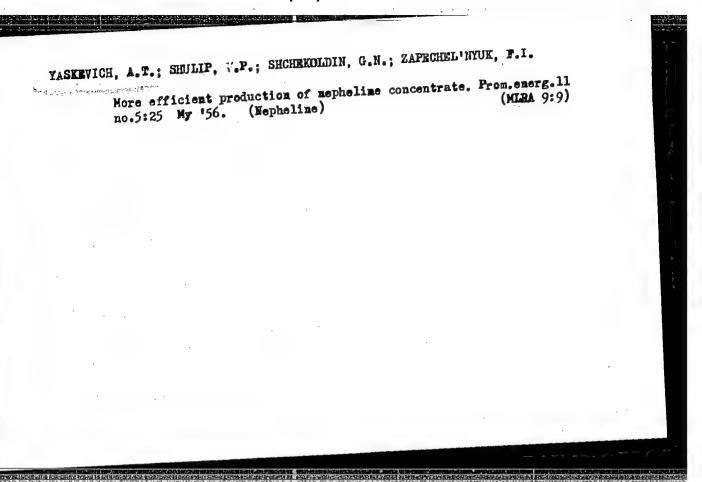
(Bogurayev—Dump trucks)



YASKEVICE, Aleksey Pavlovich; BOBYR BYKHANOVSKIY, I.L., red.;
FEDOROV, V.P., red.izd-va; LAVRENOVA, H.B., tekhn.red.

[Collisions of ships] Stolknovenie sudov. Moskva, Izd-vo
"Morskoi transport." 1958. 137 p.

(Collisions at sea)



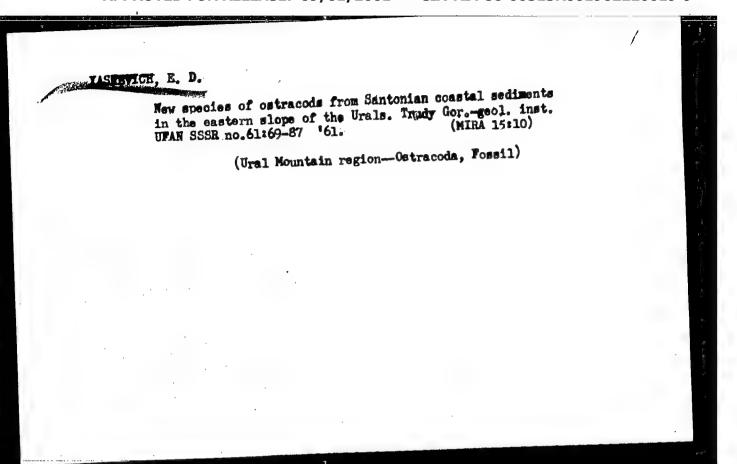
# "APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001962220019-9

YASKEVICH, A.T.

Conference on the use of foam apparatus for the removal of dust from gases. Knim.prom. no.4:251-252 Je '57. (MLRA 10:9)

(Dust collectors)



# "APPROVED FOR RELEASE: 09/01/2001 CIA-

CIA-RDP86-00513R001962220019-9

SOV/32-25-4-58/71

9(6) AUTHORS:

Chikobava, V. S., Yaskevich, G. N.

TITLE:

Use of Silver - Carbon Foils for Electron Microscope Investigations (Primeneniye serebryano-ugol nykh plenok dlya

elektronnomikroskopicheskikh issledovaniy)

PERIODICAL:

· Zavodskaya Laboratoriya, 1959, Vol 25, Nr 4,

p 498 (USSR)

ABSTRACT:

Silver - carbon foils may be used for studying electronmicroscopically the fine structure of nickel alloys. Silver
is dusted ento the pickled ground section in a vacuum
(10-4 mm Hg). The thickness of the silver layer is a few
microns, and it can be easily detached. Carbon is then dusted
ento this negative silver "print" of the ground section.
This is, again, done in the vacuum. This dual-layer silvercarbon foil is, then placed into nitric acid, where the
silver dissolves and the carbon foil floats up. The latter
is then cleaned and studied electron-microscopically. The
electron microphotograph of a ZhSZ alloy is given (Fig).

Card 1/1

There is 1 figure.

ACCESSION NR: AP4015077

\$/0205/64/004/001/0003/0009

AUTHOR: Tseytlin, P. I.; Yaskevich, G. P.; Ryabchenko, N. I.

TITLE: Effect of ionizing radiation on the hydrogen bond system of DNA macromolecules

SOURCE: Radiobiologiya, v. 4, no. 1, 1964, 3-9

TOPIC TAGS: ionizing x-irradiation effect, DNA macromolecular structure, DNA hydrogen bonds, DNA thermostability, radiation dose, DNA melting temperature, double strand DNA

ABSTRACT: This study of DNA macromolecular structure thermostability is based on the literature and on investigation of DNA solutions. DNA solutions (0.00%) were vibrated at 10 kc and x-irradiated in 0.2M NaCl with doses ranging from 12 to 59 kr. Hydrogen bond system damage in DNA solutions was determined spectrophotometrically by absorption value changes. Melting temperature curves served as thermostability indices. Findings show that radiation doses may markedly reduce DNA melting temperatures without affecting DNA absorption values at room temperature. With increased radiation doses,

Card 1/2

ACCESSION NR: AP4015077

the DNA melting temperature profile deteriorates. Nelting temperature decrease is a linear function of the radiation dose. Irradiation breaks down DNA hydrogen bonds into several double strand DNA parts independent of one another. These DNA parts melt at lower temperatures because of reduced molecular weight (100,000 or less). Orig. art. has: 5 figures, 1 table.

ASSOCIATION: Institut eksperimental noy biologii AMN SSSR, Moscow(Institute of Experimental Biology, AMN SSSR); Institut meditsinskoy radiologii AMN SSSR, Obninsk(Institute of Medical Radiology, AMN SSSR)

SUBMITTED: 17Jul63

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: LS

NO REF SOV: 006

OTHER: 015

Cord 2/2

50

EWT (1)/EMA(h)/ETC(m)-6 SOURCE CODE: UR/OL13/66/000/002/0100/0100 L 24409-66 ACG NR: AP6006369

AUTHORS: Chernoval, V. S.; Shcherba, N. U.; Frelin, N. V.; Dashevskiy, L. N.; Kolyada, I. A.; Gudrit, Ye. R.; Pediv, V. A.; Ivanovskiy, E. N.; Yaskevich, L.

ORG: none

Glass 42, No. 178125 Tannounced by Gas Institute, TITLE: Streamline flow meter. AN UkrSSR (Institut gaza AN UkrSSR)/

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 100

TOPIC TAGS: flow meter, streamline flow

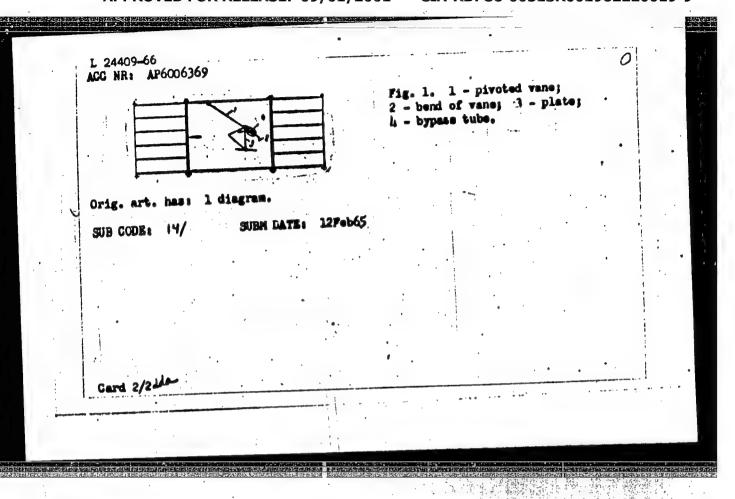
ABSTRACT: This Author Certificate presents a streamline flow meter containing a sensing element in the form of a pivoted wans and jet rectifiers mounted in front of and behind the wane (see Fig. 1). To decrease vibrations, the pivoted vane has a bend in the side opposite the flow direction. A plate whose center of gravity is displaced toward the free end of the vane is hinged to the vane. There is also a bypass tube connecting the front and back of the vane.

Card 1/2

UDG: 532.574.27

### "APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001962220019-9



# YASKEVICH, R.T. Characteristics of the anatomical structure of wood of some almond species. Bot. shur. 41 no.8:1172-1177 Ag \*56. (MIRA 9:12) 1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova. (Almond) (Wood)

Shoot formation in Digraphis arundinacea L. and Beckmannia eruciformis
(L) Host. Bot.zhur. 43 no.3:395-399 Mr 158. (MIRA 11:5)

1. Institut biologii AN BSSR, Minsk.
(Reed canary grass) (Slough grass)

### "APPROVED FOR RELEASE: 09/01/2001

### CIA-RDP86-00513R001962220019-9

L 45874-66 SOURCE CODE: UR/0317/66/000/001/0066/0067

AUTHOR: Yas'kevich, Z. (Master of arts; Engineer; Member of Polish Army)

ORG: None

TITLE: Asphalt-paved runways

SOURCE: Tekhnika i vooruzheniye, no. 1, 1966, 66-67

TOPIC TAGS: airfield, runway construction, asphalt / D-20, D-50, D-70, D-70, D-100

ABSTRACT: The use of bituminous materials such as asphalts and tars for landing-strip pavements on Polish airfields is discussed. This material is successfully used for repairing old cement or concrete runways and for new constructions. It is estimated that the life of asphalt pavements is about 30 years while the life of concrete pavements is from 35 to 50 years. However, asphalt is less expensive than concrete. If The landing strips are usually paved either with coarse-grained or medium-grained asphalt-concrete mixtures. The mixtures consist of D-50 or D-70 asphalt, mineral flour, crushed stone and sand (grains less than 2 mm). The percentage compositions of coarse and medium-grained mixtures are shown in a table. Asphalts of Polish domestic origin are used. Their types and penetrations, at 25 C, are shown in a table. In order to increase the surface non-skid properties, an addition (not more than 30%) of blast-furnace slag to crushed basalt is recommended. The addition of a mixture composed of lime (70%) and chimney (30%) ashes

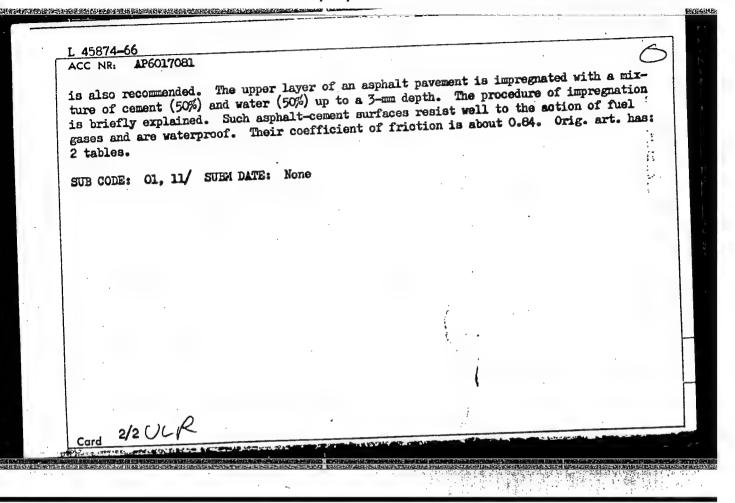
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### "APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001962220019-9



YASKEVICHILIS. YASKEVIOTUS, A., med. m. kand. Acute pancreatitis from data of the 1st general clinical hospital. Sveik. apsaug. 8 no.1:12-16 Ja'63. 1. Vilniaus 1 tarybine klinine ligonine. Vyr. gydytojas V. Bernackis.

> CIA-RDP86-00513R001962220019-9" APPROVED FOR RELEASE: 09/01/2001

PROPERTY OF THE PROPERTY OF TH

# YASKHIN, A.Ya.

Lower waves in a rectangular wave guide with a laminated filling.

Izv.vys.ucheb.zav.; radiotekh. no.4:503-505 J1-Ag '53.

(MIRA 11:11)

1. Rekomendovana kafedroy fiziki Moskovskogo stanko-instrumentalinogo instituta im. I.V. Stalina. (Wave guides)

FAL'KOVSKIY, S.V., inzh.; ZAKHAROV, Ye.S., inzh.; VICAK, V.M., inzh.;

YASKILKO, N.B., inzh.; BULYCIN, Yu.G., inzh.; PASICHNIK, I.I., inzh.

Using strain gauges for a full scale investigation of the steam pipes of the 200 Mw unit. Teploenergetika 9 no.1:32-36 Ja 162.

(MIRA 14:12)

1. Yuzhnoye otdeleniye Gosudd stvennogo tresta po organizatsii i ratsionalizatsii elektrostantsiy.

(Steam pipes—Testing)

(Boilers)

YASKIN, S. I.

"Sainfoin in Khakassiya Sandy Soil and Its Agricultural Value."
Cand Agr Sci, Omsk Agricultural Inst, Omsk, 1953. (RZhBiol, No 3, Oct

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

So: Sum. No. 481, 5 May 55

YASKIN, V.

Pirat results of our construction organization's work. Sel'. stroi.

(MIRA 10:4)

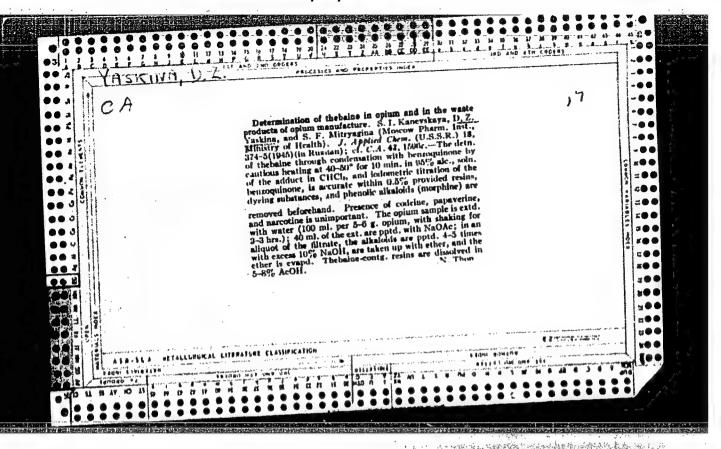
11 [i.e. 12] no.2:5-6 I '57.

l. Predsedatel' Peremyshl'skoy mexhkolkhoznoy stroitel'noy organizatsii Kalushskoy oblasti. (Peremyshl' District--Construction industry)

YASKIN, V. N.

"Causes of the Noncoalescence of Water Droplets in Collision," by P. S. Prokhorov and V. N. Yaskin, Lab. of Surface Forces, Inst. of Physical Cehmistry, Acad. Sci. USSR, April, 1947

B-76026



YASKINA, D.S., kandidat farmatsevticheskikh neuk

Cuentitative determination of some selts of alkeloids and enesthetics
in abuilto solutions by means of "H-O" ion-archange substances. Art.
in abuilto solutions by means of "H-O" ion-archange substances. Art.
in abuilto solutions by means of "H-O" ion-archange substances. Art.
in abuilto solutions by means of "H-O" ion-archange substances. Art.
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in abuilto su

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राने का दाखा करा का करता है। यह समान रहा करता है।

YASKINA, D.S.

453

AUTHORS:

Kanevskaya, S. I. and Yaskina, D. S.

TITLE:

The Mechanism of the Hofmann Reaction (K voprosu o mekhanizme reaktsii Gofmana)

PERIODICAL:

Zhurnal Obshchey Khimii, 1957, Vol. 27, No. 1, pp. 65-68 (U.S.S.R.)

ABSTRACT:

In order to explain further the mechanism of the Hofmann reaction, the authors studied it with amides beta-phenyl-beta-(N-phenyl-N-benzoylamino)-propionic acid because the absence of the hydrogen atom in the nitrogen of the amino-group of this amide promotes the possibility of formation of a homologous glyoxalidone, provided possibility of formation of a homologous glyoxalidone, provided possibility of formed from potassium salt of carbamic acid. The the latter is formed from potassium salt of intramolecular glyoxalidones are being formed not as a result of intramolecular cyclization of the intermediately originating salts of carbamic cyclization of the intermediately originating salts of carbamic acids but rather as a result of intramolecular isomerization of the intermediate isocyanates. Again, due to the absence of the hydrogen atom in the nitrogen of the amino group, the isocyanate does not experience an intramolecular closing into glyoxalidone but hydrolyzes under the effect of an alkali surplus into a homologous diamine. Benzoylation of beta-phenyl-beta-(N-phenylamino)-propionic acid was possible only in the presence of benzoyl

Card 1/2

453

The Mechanism of the Hofmann Reaction

chloride in the quinoline base medium. Employing this method, the authors obtained beta-phenyl-beta-(N-phenyl-N-benzoylamino)-propionic acid which was converted with acid chloride into amide. The reaction of amide of beta-phenyl-beta-(N-phenyl-N-benzoylamino)-propionic acid with potassium hypobromite did not produce any glyoxalidone; a detailed investigation of the reaction products revealed a substance, the analysis and property data of which corresponded with beta-phenyl-beta-(N-phenyl-N-benzoyl)-ethylene-diamine.

There are 10 references, of which 4 are Slavic.

ASSOCIATION:

The Moscow Pharmaceutical Institute (Moskovskiy Farmatsevticheskiy

Institut)

PRESENTED BY:

SUBMITTED:

January 30, 1956

AVAILABLE:

Card 2/2

YASKINA, D.S.

454

AUTHORS:

Kanevskaya, S. I. and Yaskina, D. 8.

TITLE:

Synthesis of Substituted Ethylenediamines by the Hofmann Reaction (Sintez zameshchennykh etilendiaminov po reaktsii Gofmana)

PERIODICAL:

Zhurnal Obshchey Khimii, 1957, Vol. 27, No. 1, pp. 68-72 (U.S.S.R.)

ABSTRACT:

The method of obtaining arylethylenediamines based on the splitting of glyoxalidones with hydrochloric acid (method introduced in 1932 by S. I. Kanevskaya) and the Hofmann reaction were used in synthesizing phenylethylenediamine derivatives containing methoxy- and methylenedioxy groups in the phenyl radical. The chemical process of synthesizing 4-methoxy- and 3,4-methylenedioxyphenyl-ethylenediamines is described. The basic beta-(3,4-methylene dioxyphenyl)and beta-(4-methoxyphenyl)-beta-aminopropionic acids were derived by the widely-known V. M. Rodionov method (5-13), then subjected to benzoylation with benzoyl chloride in an alkali medium and finally converted by ester of acid chloride into homologous amides. By applying the Hofmann reaction to amides of beta-3,4-methylene dioxyphenyl)-beta-(N-benzoylamino)-propionic and beta-(4-methoxy phenyl)-beta-(N-benzoylamino)-propionic acid, the authors obtained 5-(3,4-methylene dioxyphenyl)-glyoxalidone together with 5-(4methoxyphenyl)-1,3,4-oxydiazolone-(2),5-(3,4-methylen dioxyphenyl)-

100

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001962220019-9"

454

Synthesis of Substituted Ethylenediamines by the Hofmann Reaction

1,3,4-oxydiazolone-(2) and 5-(4-methoxyphenyl)-glyoxalidone. Carbonization took place after heating the latter with concentrated hydrochloric acid. Only after finding softer hydrolysis conditions for these glyoxalidones was its possible to obtain dichlorohydrates of 3,4-methylene dioxyphenyl-ethylenedimaine and 4-methoxyphenyl-ethylenediamine. Pharmacological tests conducted by M. M. Nikolayeva and P. M. Subbotin at the Moscow Pharmaceutical Institute showed that this substance, when introduced intravenously, causes a rise in blood pressure (cats and rabbits) but is about .2% as potent as andrenalin. There are 15 references, of which 5 are Slavic.

ASSOCIATION:

The Moscow Pharmaceutical Institute (Moskovskiy Farmatsevticheskiy

Institut)

PRESENTED BY:

SUBMITTED:

January 30, 1956

AVAILABLE:

Carc 2/2

# YASKINA, D.S., kand.farmatsevticheskikh nauk

Quantitative determination of ampule solutions of the hydrochlorides of lobeline and ephedrine by using the "H\_O" anionite.

Apt.delo 8 no.3:66-68 My-Je 159. (MIRA 12:8)

1. Iz kafedry farmatsevticheskoy khimii (zav. - prof.P.L.Senov) farmatsevticheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova Ministerstva zdravo-okhraneniya RSFSR.

(LOBELINE) (EPHEDRINE) (ION EXCHANCE)

YASKINA, D.Z., kand.farmatsevticheskikh nauk
"Technology of pharmaceutical chemical preparations" by L.S. Maioris.
Reviewed by D.Z. IAskina. Apt. delo 9 no. 5:88-89 S-0 '60.

(CHEMISTRY, MEDICAL, AND PHARMACEUTICAL)

(MAIORIS, L.S.)



BELOVA, A.V.; GORBACHEVA, N.A.; SHVAYKOVA, Mariya Dmitriyevna, prof.; SHEVERDYAYEVA, V.M.; RUBTSOV, A.F.; kand.farmatsevticheskikh nauk, retsenzent; YASKINA, D.S.; kand.farmatsevticheskikh nauk; retsenzent; KOZULIN, V.S., red.; RAYKO, N.Yu., tekhn.red.

[Manual on the practical studies of forensic chemistry for pharmacology correspondence students of institutions of higher learning] Rukovodstvo k prakticheskim zaniatiiam po sudebnoi khimii; dlia studentov-zaochnikov farmatsevticheskikh vuzov. Pod obshchei red. M.D.Shvaikovoi. Moskva, I-1 Mosk.mod.in-t im. I.M.Sechenova, 1961. 101 p. (MTRA 1426)

1. Kafedra sudebnoy khimii farmatsevticheskogo fakul'teta 1-go Moskovskogo ordena Ienina meditsinskogo instituta imeni I.M. Sechenova (for Belova, Gorbacheva, Shraykova, Sheverdyayeva). (PHARMACOLOGY—LABORATORY MANUALS) (CHEMISTRY, LEGAL)

### "APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001962220019-9

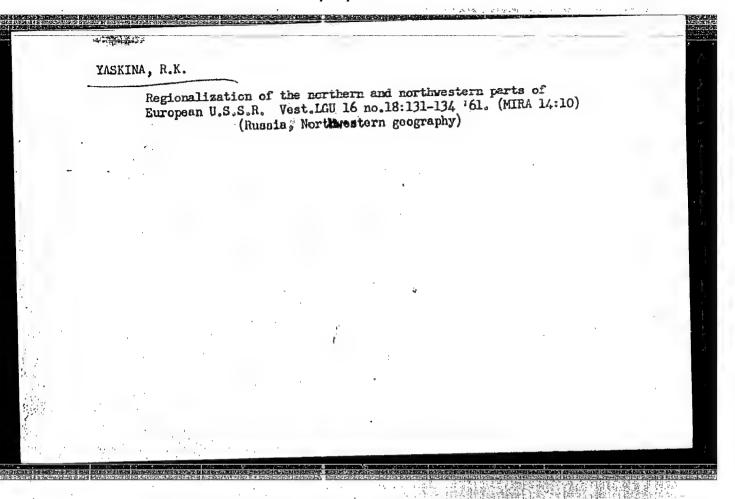
YASKINA, D.S.; NGUYEN BA KHIYEP

Quantitative determination of aprophene and benzacetine with the aid of H-O anionite. Apt. delo 13 no.1:69-70 Ja-7 '64.

(MIRA 17:4)

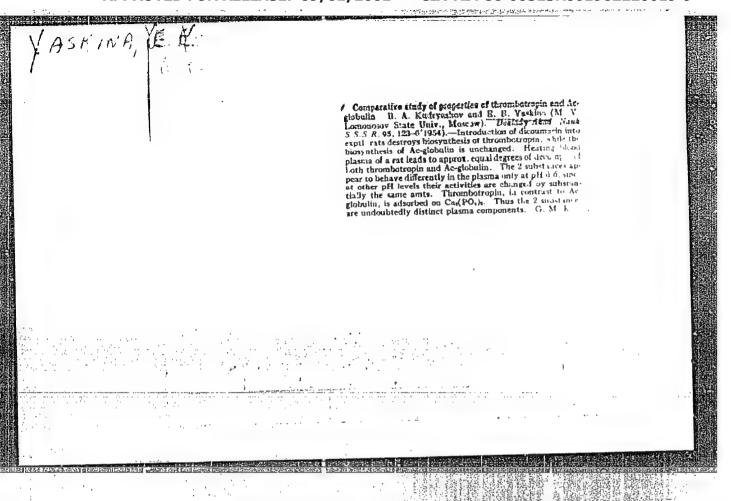
1. Farmatsevtichoskiy fakulitat I Moskovskogo ordena Lemina meditainskogo instituta imeni Scchenova.

YASKINA, K.V.		
	SOROKINA, Ye.G.	
and the state of t	3(5) PHASE I BOOK EXPLOITATION SOY/1798	
	Burulutskov, Fedor Semenovich, Tamara Ivanovna Gurova, Lidiya Illaricnevni Korobeynikova, Yiktoriya Aleksandrovna Fluman, Antonida drigor'- yevna Poda, Tevgeniia Gerbetovna Sorokina, and Elavdiya Vasil'yevna Yaskina	
يوم ميري نشانده ميري	Litologiya mezozoya i kaynozoya Zapadno-Sibirskoy nizmennosti (Mesozoic and Cenozoic Lithology of the West Siberian Flains) Moscow, Costoptekhizdat, 1957. 187 p. 1,000 copies printed.	
	Sponsoring Agencies: USSR. Ministerstvo neftyanoy promyshlennosti, and Zapadno-Sibirakiy gosudaratvennyy nefteraxvedochnyy trest.	
	Ed.: V.G. Vasil'yev; Exec. Ed.: Ye.G. Pershina; Tech. Ed.: E.A. Mukhina	
	PURPOSE: This book is intended for lithologists, petrographers, stra- tigraphers, and exploration geologists in general.	₹   
	COVERABLE: The book describes the methods and results of lithological and petrographic studies of Mesoscic and Cenoscic sediments conducted in the area of the Vest Siberian Flains during the period 1950-1959. An analysis is made for each stratigraphic component of the mineral - Card 1/7	
	petrographic composition of the rocks and the mineral-petrographic correlations. A comparison between the studied cross-sections is also made. The facies characteristics of sedimentation for individual periods in the geological history of the regions and the variations in these characteristics in space and time are discussed. Conditions favorable for the formation and migration of gases and petroleum during Mesosoic time and the possible accumulation of petroleum and gas on an industrial scale in Western Eiberia are examined. There are 38 figures, 11 tables, a supplement containing 5 maps. There are 35 Seviet references.	
	TABLE OF CONTENTS:	7
4 100	Introduction	
	Ch. I. Nothods of Study	- Property and the second seco
	Ch. II. Lithologie and Petrographie Characteristics and the Mineralogical Composition of Mescacie and Concects Sediments of the Control and Southern Parts of the West Si- Derian Flains 7	
	- Brack 120 configuration (Section 2011)	



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### CIA-RDP86-00513R001962220019-9



15G95

YASKLOVSKIY, V.

USER/Vocational Bincation 5705.0200

Oct 1947

"Moscow Leather Shoe Combine is Twenty-five Years Old, "LV. Tasklovskiy, 1 p

"Legkaya Prom" Vol VII, No 10

Discusses achievements and curricula of Moscow
Leather Shoe Combine Technical School. Student body
of 600 persons in 1946-1947 academic year. Total
auditorium, laboratory and office space is 3,500
auditorium, laboratory and office space is 3,500
meters. Library contains 54,000 volumes, and there
are not enough instructors. In past 25 years the
combine has prepared 1,278 workers as commanders of
central workshops, 653 footweer technologists, 49
technologists for production of entracts, and 381
leatherworker-technicisms.

PERSHIN, N.I.; ALEKSANDROV, V.I.; ILLERITSKIY, N.Ye.; TABACHKOV, I.F.;
BOL'SHAKOV, V.I.; KANARY, I.A.; YAS'KO, A.E.; KLYUKIN, A.P.;
IZHBOLDINA, S.I., tekhn. red.

[The millionth tractor; on the occasion of the 30th anniversary of the Stalingrad Tractor Plant (1930-1960)] Mililionnyi traktor; k 30-letiu Stalingradskogo traktornogo zavoda (1930-1960). Stalingrad, Stalingradskogo traktornogo za1960. 94 p.

(MIRA 16:9)

1. Stalingradskiy traktornyy zavod im. Dzerzhinskogo.

(Volgograd--Tractor industry)

YAS'KO, G.S. [IAs'ko, H.S.]

Increasing the economic eff' ency of capital investment in the "Il'ich" Leather Factory in Berdichew. Leh. prom. 10.4: 41-42 0-D '64 (MIRA 18:1)

PASKO, L.V.

S/135/62/000/005/001/010 A051/A126

AUTHORS:

Nazarov, I.N. (deceased); Nagibina, T.D.; Yasenkova, L.S.; Alikeberova, G.L.; Yas'ko, L.V.

TITIE:

Copolymers based on butadiene, isoprene and dimethylvinylethynyl

carbinol

PERIODICAL: Kauchuk i rezina, no. 5, 1962, 1 - 4

TEXT: The article deals with the reaction of copolymerization in an emulsion of butadiene and isoprene with dimethylvinylethynyl carbinol (MWEC), in the precence of various initiators. A comparative evaluation of the vulcanizates of these rubber bases is made. Monomers used in the reaction were: rectified butadiene, MWEC (boiling point 58 - 59°C/13 mm, np 1.4786, dp 0.8925), inoprene (boiling point 34°C, np 1.4203). The various initiators used were: potassium persulfate, diazoaminobenzene and glucose, diazoaminobenzene with hydroquinors. The physico-chemical properties are studied of the butadiene and MWEC copolymers [AK-30 (DK-30) and JK-10 (DK-10)], and of the isoprene and IMVEC copolymers [MK-30 (IK-30) and NK-10 (TK-10)]. It was found in experiments that car-

Card 1/2

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CIA-RDP86-00513R001962220019-9

S/138/62/000/005/001/010 A051/A126

Copolymors based on butadiene, isoprene and ....

bon black vulcanizates of the butadiene and DAVEC copolymers have a high tensile strength, a sufficiently high thermal resistance, satisfactory wear and crack growth resistance in repeated bends. They are superior to vulcanizates of industrial butadiene-styrene and butadiene-nitrile rubbers [CKC-30 (SKS-30) and CKH-26 (SKN-26)]. The DK-3G copolymers, produced in the presence of diazoaminobenzene and glucose, have the highest mechanical strength. The thermomechanical indices of the former are higher than those of the SKN-26 copolymers. The physico-mechanical properties of the IK-30 copolymer vulcanizates (excluding crack growth) are on one level with rubbers based on industrial SKS-30 rubber, and are superior to the latter in their crack growth resistance. The IK-10 copolymer vulcanizates are inferior, to rubbers based on the industrial SKS-30 rubber as to physico-mechanical properties, excepting frost resistance.

ASSOCIATION: Institut organicheskoy khimii AN SSSR (Institute of Organic Chemictry at the AS USSR)

Card 2/2

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001962220019-9"

NAGIBINA, T.D.; YASENKOVA, L.S.; ALIKBEROVA, G.I.; YAS'KO, L.V.

Copolymerization of butadiene and isoprene with dimethylvinylethynyl-carbinol at 5°C. Kauch.i rez. 21 no.7:6-8 J1 162. (MIRA 15:7)

1. Institut organisheskoy khimii AN SSSR.
(Butadiene) (Isoprene) (Alcohols)

NAGIBINA, T.D.; YASENKOVA, L.S.; YAS'KO, L.V.; ALIKBEROVA, G.I.

Isoprene and acrylonitrile copolymers. Kauch. 1 rez. 22 no.12:4 D \*63. (MIRA 17:9)

1. Institut organicheskoy khimii AN SSSR.

ORLOV, V.P., kand.sel'skokhoz.nauk. Prinimali uchastiye: AVROV, N.N.;

BASEHKO, P.V.; VARLAMOV, D.A.; VASIL'YEV, I.I.; VLASOV, V.H.;

VYLEGZHANINA, V.A.; ZHIVET'YEV, V.G.; ZAVADSKIY, I.S.; ZALESSKIY,

Ye.Ya.; ZAKORYUKIN, D.S.; ISHCHENKO, I.N.; KACHIBAYA, I.D.; KISE
LEV, Ye.S.; KOZHEVNIKOV, I.Z.; LISITSYN, V.I.; MESHCHERYAKOV, V.F.;

NYURIN-VERTSBERG, R.L.; PEREPELITSA, V.M.; RYABKOV, A.D.; SKURIKHIN,

I.P.; SOLOV'YEV, N.A.; YAS'KO, N.G., GREBTSOV, P.P., red.; ZUBRILINA,

Z.P., tekhn.red.

[Our farms in 1965] Nashi khozisistva v 1965 godu. Moskva, Gos. izd-vo sel'khoz.lit-ry, 1959. 230 p. (MIRA 13:2) (Agriculture)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962220019-9"

September 1988 and 1988

STREIKDV, G.I.; YAS'KO, O.I.

Measuring the velocity of a luminous jet. Inzh.-fiz.zhur. no.5:9395 My '60.

(Jets--Fluid dynamics)

(MIRA 13:8)

SHASHKOV, A.G.; YAS'KO, OLI.; SERGEYEV, V.L.; YUREVICH, F.B. Electric arc heaters for obtaining high-temperature streams.
Inzh.-fiz.zhur. 5 no.1:115-129 Ja '62. (MIRA
(Electric arc) (Electric heating)

(MIRA 15:3)

SERGEYEV, V. L.; TROFIMOV, V. P.; YEREVICH, F. B.; YAS'KO, O. I.

Some results of studying the operation of an electric arc heater with gas stabilization of the discharge. Inzh.-fiz. zhur. 6 no.1:14-18 Ja 163. (MIRA 16:1)

(Electric arc)

GARKAVYY, Ye.V.; YAS'KO, O.I.

Some temperature characteristics of an arc jet. Inzh.-fiz. zhur. 6 no.11:50-51 N '63. (MIRA 16:11)

1. Institut teplo- i massoobmena AN BSSR, Minsk.

YASKO, O. I.

"Generalization of volt-ampere characteristics of some types of electric arcs."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Inst of Heat & Mass Transfer, AS BSSR.

5/0170/64/000/004/0025/0027

ACCESSION NR: AP40 38659

AUTHOR: Kutateladze, S. S.; Yas'ko, O. I.

TITLE: Generalization of the characteristics of electric arc heaters

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 4, 1964, 25-27

TOPIC TAGS: Electric arc heater, arc heater, electric arc, turbulent gas flow, gas vortex

ABSTRACT: Low-temperature heaters with turbulent gas stabilization air and nitrogen were used as an example to show the possibility of generalizing the voltampere characteristics of electric arc heaters. In this treatment of the ampere characteristics of electric arc heaters. In this treatment of the problem, the independent parameters are the geometry of the anode and cathode, problem, the independent parameters are the geometry of the current passing through the the geometry of the gas vortex, the intensity of the current passing through the electric arc, the gas flow rate, and the kind of gas. A criterial equation is derived which correlates the volt-ampere characteristics of such heaters. It was found that despite appreciable changes in the parameters, all the data can be represented by a single curve in generalized coordinates. This shows that even the description of such complex phenomenon as an electric arc can in certain

Card 1/2

ACCESSION NR: AP4038659

cases be carried out with a small number of criteria. Orig. art. has: 2 figures and 4 formulas.

ASSOCIATION: Institut teplo-i massoobmena, AN BSSR, Minsk (Institute of Heat and Mass Transfer, AN BSSR).

SUBMITTED: 26Jul63 DATE ACQ: 19May64

ENCL: 00

SUB CODE:

Card 2/2

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001962220019-9"

KUTATELADZE, S.S.; YAS'KO, O.I.

Generalization of the characteristics of arc heaters.
Inzh.-fiz. zhur. 7 no.4:25-27 Ap '64. (MIRA 17:4)

1. Institut teplo- i massoobmena AN BSSR, Minsk.

YAS'KO, O.I.

Generalization of the characteristics of electric arcs. Inzh.fiz. zhur. 7 no.12:112-116 D 64 (MIRA 18:2)

1. Institut teplo-i massoobmena AN RSSR, Minsk.

STRELKOV, G.I.; YAS KO, O.I.

Using the method of photographic image scanning for determining the velocity of a high-temperature gas stream. Usp.nauch.fot. 9:219 \*64. (HIRA 18:11)

# "APPROVED FOR RELEASE: 09/01/2001 CIA-

CIA-RDP86-00513R001962220019-9

L 6h316-65 EPF(c)/EPF(n)-2/ZvT(1)/ZvC(s) Wd

ACCESSION NR: AP5020214 UR/0170/65/009/001/0061/0063

AUTHOR: Yas'ko, O. I.

AUTHOR: Yas'ko, O. I.

Yas'ko, O.

ABSTRACT: The article attempts to prove that an electric arc with transverse blowing is characterized by turbulent heat transfer. The theoretical development is based on three equations: Ohms Law, the law of the conservation of energy, and the principle of the maximum. It is demonstrated that, at the temperatures which can be set up in the channel of an arc with blowing, the required blowing which can be set up in the channel of an arc with blowing rates of the arc. Transrates turn out to be considerably higher than the blowing rates of the arc. Transfer of energy within the limits of the column of the arc is effected by turbulence for of energy within the limits of the column of the arc is effected by turbulence for by some other method. From these processes we must exclude transfer of energy by molecular thermal conductivity and other processes which depend on

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L 64316-65 ACCESSION NR: AP50202	<b>14</b> 70, 75 - 14 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		•	
ASSOCIATION Institut	nd on the temperature gradie of enter into the system of de as and 1 figure plo-i massoobmena AN BSSI elorussian Academy of Scien	stermining ma	ignitudes.	
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#### "APPROVED FOR RELEASE: 09/01/2001

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L 21326-65 EWT(1)/EPA(w)-2/EEC(t)/EWA(m)-2 Pab-10 SSD/AFWL/BSD/AEDC(a)/
ASD(f)-3/AS(mp)-2/AFETR
ACCESSION NR: AP5002034 S/0170/64/000/012/0112/0116

AUTHOR: Yas'ko, O. I.

TITLE: General characteristics of electric arcs

SOURCE: Inzhenerno-fizicheskiy zhurnel, no. 12, 1964, 112-116

TOPIC TAGS: electric arc, heat transfer, energy transfer, electric conduction, thermal conduction, turbulent heat transfer

ABSTRACT: From energy relations, a set of criteria is obtained for electric arcs, and the results are applied to the volt-ampere characteristics of the system. According to S. S. Kutateladze and O. I. Yas'ko (IFZh, No. 4, 1964), by neglecting all forms of heat transfer except energy transfer to the gas, a dimensional group may be obtained in the form  $Ud/l = \int (l^2/Gd)$ , provided that  $d_0$  and  $d_0$  are constant.

For blowing or moving electric arcs (with heat transfer by turbulent conduction), the above expression can be modified to yield a dimensional group of the form  $El/d_0 v_0 h_0 W = \int (l^2/v_0 h_0 c_0 d_0^2 W)$ . This can then be reduced to the volt-ampere characteristic  $E/l = 3550 (l^2/W)^{-0.76}$ , where the coefficients have been determined experimentally. An equivalent dimensional group for stabilized arcs is given by  $Ed^2/l = \int (l/d)$ . For

Card 1/2

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ACCESSION NR: AP5002034

 $I/d < 10^4$ , by making use of experimental data, this functional relationship can be expressed by the equation  $Ed^3/I = 400 (I/d)^{-1.3}$ , provided that the physical parameters  $\delta$ ,  $\lambda$ , and T remain constant. Thus, it is shown that the complex phenomenon associated with electric arcs can be represented by generalized characteristics. Orig. art. has: 14 formulas and 3 figures.

ASSOCIATION: Institut teplo- i massoobmena AN BSSR g. Minsk (Institute of Heat and Mass Transfer, AN BSSR)

SUBMITTED: 09Apr64

ENCL: 00

SUB CODE: EE

NR REF SOV: 004

OTHER: 001

2/2

KOROTEYEV, A.S.; YAS'KO, O.I.

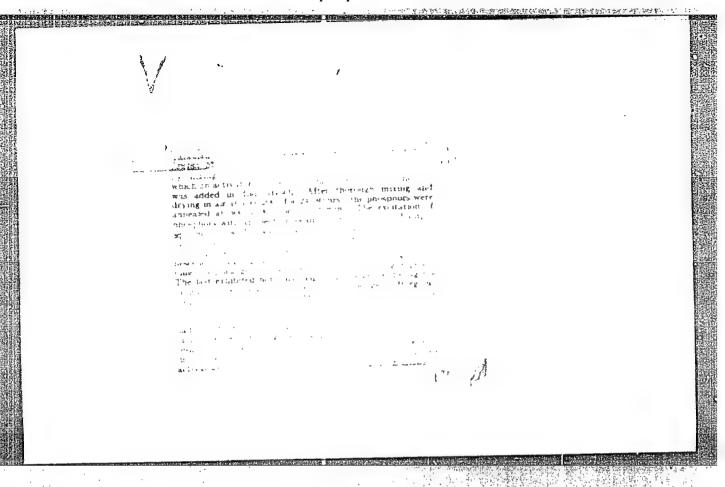
Generalization of the characteristics, in dimensionless criteria, of blown electric arcs. Inzh.-fiz. zhur. 10 no.1:26-31 Ja '66.
(MIRA 19:2)

1. Institut teplo- i massoobmena AN BSSR, Minsk. Submitted July 30, 1965.

YAS'KO, P.

What are the advantages of short-time following of fall tillage? Zemledelie 26 no.9:28-29 S '64. (MIPA 17:11)

1. Glavnyy agronom Shovgenovskogo proizvodstvennogo upravleniya Adygeyskoy avtonomnoy oblasti.



YAS'KO, S.; YEVGEN'YEV, V. [IEvhen'iev, V.]

Railroad kaleidoscope. Znan.ta pratsia no.8:7 Åg '62.

(Railroads)

(Railroads)

BRYKIN, L., mashinist pod"yema; DEMIN, B., krepil'shchik; FERSHIN, V., slesar'; YAS'KO, Ya., gornyy master; VIGDERGAUZ, I.; KRYLOVSKAYA, L.

New living quarters, old mistakes. Sov.shakht. 10 no.4:34-35 (MIRA 14:9)

1. Redaktor shakhtnoy gazety "Slava Rodine" (for Vigdergauz).
2. Korrespondent zhurnala "Sovetskiy shakhter" (for Krylovskaya).

(Housing)

YASKOL'DOVICH, N.V.; GOLOVACH, N.N.

Induction vulcanizer. Ugol' 36 no.7:30 Jl '61. (MIRA 15:2)
(Vulcanization) (Coal mines and mining--Equipment and supplies)

Yaskolko, V. Ya.

USSR/Fitting Out of Laboratories -- Instruments, Their Theory, Construction, and Use. H

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1325

Nosenko, B. M., Revzin, L. S., and Yaskolko, V. Ya. Author:

Academy of Sciences, Uzbek SSR Institution:

> Applications of CaSO4Mn in Dosimetry Title:

Original

Dokl. AN UzSSR, 1956, No 4, 3-4 (Uzbek Summary) Periodical:

The possibility of the application of the phosphor CaSO4-Mn to the Abstract:

dosimetry of  $\beta$  and  $\gamma$ -radiation over a broad range of intensities has been investigated. CaSO4-Mn stores a considerable amount of light energy during cathode excitation and thermally radiates this energy, losing 30-50% of the total absorbed energy in 8 hours at an ambient temperature of 20-40°. The luminescence was recorded with a type FEU-19 photometer. The radiation dose was determined from the maximum photocurrent recorded during luminescence. For radiation doses of 0.005-40 roentgen the luminescence yield is proportional to the

Card 1/2

CIA-RDP86-00513R001962220019-9"

**APPROVED FOR RELEASE: 09/01/2001** 

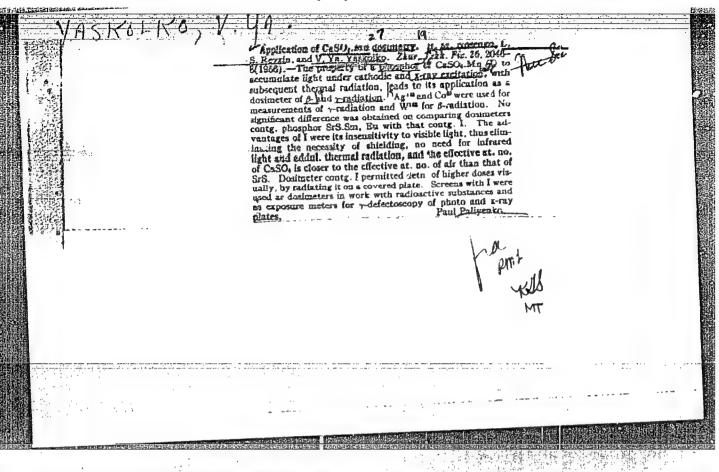
USSR/Fitting Out of Laboratories -- Instruments, Their Theory, Construction, and Use, H

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1325

Abstract: radiation dosage; at higher dosages the luminescence yield decreases uniformly as the dose is increased. A drawback of the proposed phosphor is a loss in luminescence yield with time. The sensitivity of dosimeters using CaSO4-Mn is equal to that of dosimeters using Sr-S-Sm-Eu. The proposed phosphor has the advantage that it cannot store light energy under irradiation with visible light, does not require a special device for IR quire corrective lead shielding of the dosimeter.

Card 2/2

AKCT9810.



THSKOLKO, U.YA 51-4-8/26 and Yaskolko, V. Ya. Revzin, L. S. Nosenko, B. M., : S. OHTUA On Phosphors Based on CaSO4. (O fosforakh na osnove CaSO4). TITIZ: PERIODICAL: Optika i Spektroskopiya, 1957, Vol.III, Nr. 4, pp.345-350. (USSR) The phosphor CaSO4-Mn was used to study far ultraviolet radiation of the sun (Ref.5). The property of storing the light-sum on excitation by short ultraviolet wave-ABSTRAC!: lengths and emitting it on heating, possessed by this phosphor, was found to be very useful. (Refs 5 and 7). The present authors found that CaSO4-Mn can store lightsum on excitation with electrons (cathodoluminescence), X-rays, \$\beta\$-rays and \$\chi\$-rays. This property makes it possible to use the phosphor as a dosimeter of radio-The present paper reports results active radiations. of a more detailed investigation of the properties of CaSO4-Mn, some of which have already been published (Refs. 8, 9). The emission spectrum on electron excitation was recorded by a spectrograph MCN-51.

On Phosphors Based on CaSO4.

Photometric measurements of spectrograms were carried out using a microphotometer MA -2. Pure CaSO4 did not emit ever when strong electron beams were directed on to Activation (from 0.1 to 10 mol.%) with Co, Fe, Mg, Tl, Ag, Pb, Zn, Ni and Mn made it possible to obtain emission in any region of the visible spectrum. grain structure, good binding properties and stability under ior c bombardment and thermal treatment, make Brightness of thermo-CaSO<sub>4</sub> of special interest. luminesce ce of the phosphors studied was measured by means of photo-multiplier. The magnitude of the photo-curie t was recorded on a film, together with temperature of the screen to which the phosphor was attached, the stored light-sum was found by integration of the wea lader the thermoluminescence curves. the pho phore prepared could store light energy on excitation with electrons, X-rays,  $\beta$ -rays and  $\gamma$ -rays, emitti/g this energy on heating. CaSO4-Mn was studied in gratest ditail. Magnitude of the light-sum stored

Card 2/5

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CIA-RDP86-00513R001962220019-9"

On Phosphor Based on CaSO4.

was no less than that stored on photo-excitation. cathodo-excitation (i.e. by electrons) the light-sum stored depends on: duration of excitation, electron-At small charge current density and electron energy. densities produced by electrons the light-sum is approximately proportional to this charge density. higher charge densities saturation of the light-sum At small charge densities the light-sum is also proportional to the electron energy, while in the region of saturation the light-sum varies as the square If the phosphor is kept for of the electron energy. a long time it gradually loses its stored light energy. An absolute value quoted by the authors for the lightsum stored on excitation with 5 keV energy is about 20 apostilb-minutes in the region close to saturation. The mechanism of the described storage effect in CaSO4-Mn is undoubtedly of a recombination type, since Lepper (Ref.11) has showed that capture centres belong to CaSO4 lattice and are not due to the activator. whether the mechanism of emission is mono- or bimolecular, CaSO<sub>4</sub>-Mn was irradiated with  $\beta$ -rays from W185 and by

Card 3/5

On Phosphors Based on CaSO4.

Co<sup>60</sup> Y-rays. The phosphor layer on the screen was 2-3 mg/cm<sup>2</sup> thick. The authors consider various criteria put forward in Refs. 13-15, and come to the conclusion that the emission mechanism in CaSO4-Mn is bimolecular. To test the CaSO4-Mn phosphor as a radioactive dosimeter it was deposited on metal screens in layers 2.6 mg/cm2 thick, and was irradiated with  $\gamma$ -rays from Co60 and thick, as well as with  $\beta$ -rays from W185. The light The lightsum stored on irradiation with  $\beta$  - and φ9Y-19 and recorded by means of a photo-multiplier a galvanometer. From 0.005 to 50 rontgens the light-sum is proportional to the irradiation dose. At high doses this proportionality is not obeyed, but saturation is not reached even at 1000 rontgens. disadvantage of the CaSO4-Mn phosphor as a dosimeter is its loss with time of the light energy stored. durations of storage not greater than 8 hours, CaSO4-Mn is not inferior to SrS-Sm, Eu, and the accuracy of dosimeters made from CaSO4-Mn and SrS-Sm, Eu is of the same order. The advantages of CaSO4-kin are as follows:

Card 4/5

On Phosphors Based on CaSO4.

(A) Inability to store light energy under the action of visible light. (B) No special apparatus is needed to remove the residual light energy before next use. (0) The effective atomic number of CaSO<sub>4</sub> is closer to the effective atomic number of air than that of SrS. The authors thank Professor S. V. Starodubtsev for help There are 17 references, 8 of which are in this work. Slavic.

Asia ASSOCIATION: Central / State University imeni V. I. Lenin, Chair of General Physics. (Stedneaziatskiy gosudarstvennyy universitet imeni

V. I. Lenina, Kafedra obshchey fiziki).

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Card 5/5

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V. JA. VASKOLKO

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SUBJECT:

USSR/Luminescence

AUTHORS:

Nosenko B.M., Revzin L.S. and Yaskolko V. Ya.

On Phosphors Based on CaSO4 (O fosforakh meosnove CaSO4)

TITLE

Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol

PERIODICAL:

21, #5, pp 691-692 (USSR)

ABSTRACT:

Properties of phosphors based on CaSO4 were studied at electronic excitation and also at gamma- and beta-irradiation. The thermal luminescence of CaSO4-Mn was investigated in detail. The activation of CaSO, by Co, Fe, Mg, Tl and Ag produced a weekly greenish luminescence, the activation by Pb produced

dark blue, by Zn - sky-blue, by Ni - orange-red, and by Mn -

bright light-green luminescence.

The CaSO luminophore activated by any activator possessed thermal luminescence after electronic, gamma- and beta-excita-The highest ability of storing was shown by CaSO4-Mn. The CaSO 4 phosphor was used as a dosage meter. Dosages from

Card 1/2

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